Two Erigonine Spiders of the Genus *Ummeliata* (Araneae: Linyphiidae)

Hiroshi Saito1)

斎藤 博¹⁾: 日本産アカムネグモ属2種のクモ

Abstract Two spider species of the genus *Ummeliata* Strand, 1942 (Linyphiidae) are reported. *Ummeliata feminea* (Bösenberg et Strand, 1906), comb. nov., is transferred from *Oedothorax* and is regarded as a senior synonym of *Ummeliata tokyoensis* (Uyemura, 1941) [originally *Erigone tokyoensis*]. A new species is described from Japan under the name *Ummeliata onoi*.

The present paper contains reports of two species of the genus *Ummeliata*, Erigoninae. Of these, one is new to science and described under the name of *Ummeliata onoi* and the other one, *U. feminea* (Bös. et STR., 1906), comb. nov., (=Oedothorax femineus Bös. et STR., 1906) is taxonomically revised. Although these species closely resemble each other, especially in the shape of male cephalic lobe, they can be distinguished by their unique sexual organs.

Ummeliata onoi sp. nov. (Figs. 1–5)

Male (holotype). Body length 3.40 mm; cephalothorax 1.63 mm long, 1.18 mm wide.

Carapace reddish brown, shaded on margins and with indistinct radiating lines. Head with a large lobe posteriorly; viewed from above, the lobe wider than long, with two bristles near the top. Eyes with black ring. Anterior eye-row slightly procurved; median eyes separated from each other by a distance a little longer than radius, and from lateral ones near by the diameter. Posterior eye-row slightly recurved; median eyes separated from each other by about the diameter, and from lateral ones by a distance a little shorter than the diameter. Clypeus longer than the length of median ocular area, slightly concave at the middle. Chelicerae dark reddish brown with a stout boss anteriorly, and lacking a stridulatory organ externally; anterior margin of the fang groove with 3 teeth and posterior margin with 2 or 3 teeth. Sternum dark brown, darker at margins, roundly heart-shaped, evenly convex, and produced posteriorly into a truncate point between hind coxae which are separated by a space a little narrower than the long axis. Legs light brown, order of length 1, 4, 2, 3. Tibiae I–II each with 2 dorsal spines, tibiae III–IV each with

Accepted October 28, 1993

^{1) 1224-53} Saishôji, Masuho-chô, Minamikoma-gun, Yamanashi, 400-05 Japan 〒400-05 山梨県南巨摩郡増穂町最勝寺 1224-53

104 H. SAITO

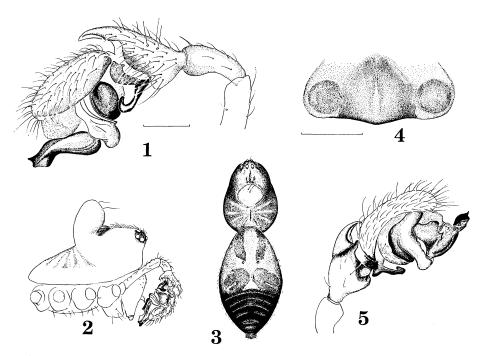
1 dorsal spine. All metatarsi spineless. Tm I ca. 0.70. Abdomen with 2 pairs of irregular black spots dorsally as shown in Fig. 3, the posterior part almost black.

Palp. Ratio of the length to that of patella 28:11. Tibia much widened distally, longer than patella, with 3 trichobothria on dorsum, and produced dorsally into a stout, triangular apophysis which is strongly chitinized at distal part. Paracymbium inverted L-shaped, strongly curved at tip.

Female (one of the paratypes). Body length 3.22 mm, cephalothorax 1.39 mm long, 1.01 mm wide.

In colour and general features as in male. Cephalic lobe lacking. Anterior eye-row nearly straight; median eyes separated from each other by a distance a little shorter than the diameter and from lateral ones by about the diameter. Posterior eye-row slightly recurved; median eyes separated from each other by about the diameter and from lateral ones by a distance a little less than the radius. Posterior eyes subequal in size. Clypeus somewhat longer than the length of median ocular area. Chelicerae reddish brown without stridulating organs and anterior bosses; anterior margin of the fang groove with 6 teeth and posterior margin with 5 teeth. Epigynum as shown in Fig. 4.

Holotype: \eth , Nikko, Tochigi Pref., Japan 12–VII–1984, H. Saito leg. Paratypes: 13 \eth \eth , 24 ς ς , same data as holotype; 1 \eth , Lake Aoki, Nagano Pref., 24–VII–1979, M. Mizusawa leg. The holotype and some of the paratypes are de-



Figs. 1-5. *Ummeliata onoi* sp. nov. —— 1. Male left palp, ectal view. 2. Male cephalothorax, lateral view. 3. Male cephalothorax and abdomen, dorsal view. 4. Epigynum, ventral view. 5. Male left palp, mesal view. (Scale lines: 0.2 mm.)

posited in the collection of the National Science Museum (Nat. Hist.), Tokyo, and the other paratypes are preserved in the author's private collection.

Remarks. The male of this species closely resembles that of *U. feminea* (Bös. et Str., 1906), comb. nov., especially in the shape of cephalic lobe, but differs from the latter in having the unique palpal conformation. The epigynum of the new species also differs from those of the other known congeners.

This species is named in honor of Dr. Hirotsugu Ono, National Science Museum, Tokyo.

Ummeliata feminea (Bös. et STR., 1906), comb. nov.

Oedothorax femineus BÖSENBERG et STRAND, 1906, Abh. senkenb. naturf. Ges., 30: 163, pl. 12, fig. 258. — ROEWER, 1942, Kat. Aran.: 640. — YAGINUMA, 1956, Check List Aran. Japan: 8; 1960, Spid. Japan Col.: 44; 1962, Spid. Fauna Japan: 21; 1970, Bull. natn. Sci. Mus. Tokyo, 13: 654; 1977, Acta arachnol., 27 (spec. no.): 383.

Erigone tokyoensis UYEMURA, 1941, Zool. Mag. Tokyo, 53: 212, figs. 1-4 [new synonymy]. ——YAGINUMA, 1956, Check List Aran. Japan: 8.

Oedothorax tokyoensis: OI, 1960, J. Inst. Polyt., D 11: 159, figs. 74–78; 1962, Atypus, (26/27): 68.

— YAGINUMA, 1962, Spid. Fauna Japan: 22; 1970, Bull. natn. Sci. Mus. Tokyo, 13: 654; 1977, Acta arachnol., 27 (spec. no.): 383. — РАІК, 1978, Illustr. Flora Fauna Korea, 21, Aran.: 434; 1985, Korean Arachnol., 1: 62. — РАІК & NАМКUNG, 1979, Stud. Paddy Field Spid. Korea: 39, fig. 21. — ZHU, 1982, J. Bethune med. Univ., 8: 117; 1983, J. Bethune med. Univ., 9 (suppl.): 59. — HU, 1984, Chinese Spid. Fields Forests: 200, fig. 210, 1–6. — ZHU et al., 1985, Crop Field Spid. Shanxi Prov.: 118, fig. 104, a–d. — IRIE, 1985, Calanus, Kumamoto, 9: 5, figs. 13–14.

Hummelia tokyoensis: Eskov, 1980, Zool. Zh., 59: 1743.

Ummeliata tokyoensis: BRIGNOLI, 1983, Cat. Aran.: 695. — YAGINUMA, 1986, Spid. Japan Col. (n. ed.): 79. — IRIE & SAITO, 1987, Heptathela, Oita, 3: 18, fig. 2, 2–3. — PLATNICK, 1989, Adv. Spid. Taxon.: 291.

Remarks. Since its original description, Oedothorax femineus Bös. et Str., 1906 has not been recognized for a long time. On the other hand, UYEMURA (1941) described a new species under the name of Erigone tokyoensis based on the specimens collected from Tokyo. This species was transferred from Erigone to the genus Oedothorax and redescribed by OI (1960) in "Linyphiid Spiders of Japan." YAGINUMA (1960) also considered it as a member of Oedothorax on the basis of the personal communication of UYEMURA. ESKOV (1980) has recently transferred five Japanese species of Oedothorax including tokyoensis to Hummelia erected by SCHENKEL (1936) for a Chinese species H. incisa. However, STRAND (1942) already pointed out that the generic name was preoccupied by Hummelia Oudemans, 1916, and gave a new name, Ummeliata, for the spider genus.

Under these circumstances, *tokyoensis* is treated as a member of the genus *Ummeliata* Strand, 1942 at the present time (Brignoli, 1983; Yaginuma, 1986; Irie & Saito, 1987; Platnick, 1989).

Having examined the female holotype of *Oedothorax femineus* preserved in the collection of the Senckenberg Museum, Frankfurt am Main (SMF4160), the author recognized that this species belongs to the genus *Ummeliata*, and is in fact the same as *U. tokyoensis*. Thus, *U. tokyoensis* (UYEMURA, 1941) is considered to be a junior synonym of *Ummeliata feminea* (Bös. et STR., 1906), comb. nov.

106 H. Saito

This species has also been recorded in China and Korea (ZHU et al., 1985; HU, 1984; PAIK, 1978, etc.).

Acknowledgments

The present author wishes to express his sincere thanks to Dr. T. Yaginuma, Osaka, Dr. C. Okuma, Kyushu University, Fukuoka, and Dr. H. Ono, National Science Museum, Tokyo, for their kind help during preparation of this manuscript. His thanks are also due to Dr. M. Grasshoff, Senckenberg Museum, Frankfurt am Main, who allowed him to examine the type specimens of Japanese linyphiids preserved in the museum.

摘 要

日光および長野県青木湖周辺で採集された標本に基づき, アカムネグモ属 (Ummeliata) の1新種, U. onoi オノアカムネグモ (新称) を記載した. また, タイプ標本の精査の結果, Oedothorax femineus Bös. et Str., 1906 アトグロアカムネグモを Ummeliata 属に転属し, U. tokyoensis (UYEMURA, 1941) を本種の新参シノニムとした.

References

- BÖSENBERG, W., & E. STRAND, 1906. Japanische Spinnen. Abh. senckenb. naturf. Ges., 30: 93-422, pls. 3-16.
- Brignoli, P. M., 1983. Catalogue of the Araneae Described between 1940 and 1981. 755 pp. Manchester Univ. Press.
- Eskov, K. Y., 1980. Taxonomic notes on spiders of the genus *Hummelia* (Aranei, Linyphiidae) with a description of a new species. *Zool. Zh.*, **59**: 1743–1746.
- Hu, J. L., 1984. Linyphiidae. In The Chinese Spiders Collected from the Fields and the Forests, pp. 176-201. Tianjin Press of Science and Thechniques. (In Chinese.)
- IRIE, T., 1985. The spiders in the Amakusa Islands, Kumamoto Prefecture. Calanus, Kumamoto, 9: 1-20.
- ——— & H. SAITO, 1987. A list of linyphiid spiders in Kumamoto Prefecture. *Heptathela*, Oita, 3: 14–30.
- OI, R., 1960. Linyphiid Spiders of Japan. J. Inst. Polyt., Osaka City Univ., (D), 11: 137-144, pls. 1-26.
- PAIK, K. Y., 1978. Illustrated Flora & Fauna of Korea, 21. Araneae. 546 pp., text-figs. 1–192. Seoul, Samhwa. (In Korean.)
- ——— & J.-P. Kim, 1985. A list of Korean spiders (revised in 1985). Korean Arachnol., 1: 51–82.
- PAIK, W. H., & J. NAMKUNG, 1979. Study on the Paddy Field Spiders in Korea. 101 pp., pls. 1–14. Seoul Press. (In Korean.)
- PLATNICK, N. I., 1989. Advances in Spider Taxonomy 1981–1987. 673 pp. Manchester Univ. Press.
- ROEWER, C. F., 1942. Katalog der Araneae von 1758 bis 1941. Bd. 1. 1040 pp. Natura, Bremen. SCHENKEL, E., 1936. Schwedish-chinesische wissenshaftliche Expedition nach den nordwestlichen Provinzen Chinas, unter Leitung von Dr. Sven Hedin und Prof. Su Ping-chang. *Ark. Zool.*, 29A: 1–314.
- STRAND, E., 1942. Miscellanea nomenclatoria zoologica et palaeontologica, X. Folia zool. hydrobiol., 11: 386-402.

- ZHU, C. D., 1982. Some new record spiders in China. J. Bethune med. Univ., 8: 117-118. (In Chinese.)
- ZHU, M. S., et al.., 1985. Crop Field Spiders of Shanxi Province. 239 pp. Agriculture Planning Committee of Shanxi Province. (In Chinese.)